

1600

RAW SEQUENCE LISTING

DATE: 12/13/2001

PATENT APPLICATION: US/09/265,585C

TIME: 16:28:57

Input Set : A:\5914066999.txt

Output Set: N:\CRF3\12132001\I265585C.raw

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OFFICE OF PETITIONS

3 <110> APPLICANT: Benfey, Phillip N.
 4 Di Laurenzio, Laura
 5 Wysocka-Diller, Joanna
 6 Malamy, Jocelyn E.
 7 Pysh, Leonard
 8 Helariutta, Yrjo
 9 Bruce, Wesley
 10 Lim, Jun
 12 <120> TITLE OF INVENTION: Scarecrow Gene, Promoter and Uses Thereof
 14 <130> FILE REFERENCE: 5914-066
 16 <140> CURRENT APPLICATION NUMBER: 09/265,585C
 17 <141> CURRENT FILING DATE: 1999-03-10
 19 <150> PRIOR APPLICATION NUMBER: 08/842,445
 20 <151> PRIOR FILING DATE: 1997-04-24
 22 <150> PRIOR APPLICATION NUMBER: 08/638,617
 23 <151> PRIOR FILING DATE: 1996-04-26
 25 <160> NUMBER OF SEQ ID NOS: 152
 27 <170> SOFTWARE: PatentIn Ver. 2.0
 29 <210> SEQ ID NO: 1
 30 <211> LENGTH: 2163
 31 <212> TYPE: DNA
 32 <213> ORGANISM: Arabidopsis thaliana
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 38 ggcgattttca acggtggtca acctcctcct catagtcctc tgagaacaac ttcttccggt 120
 40 agtagcagca gcaacaaccg tggctcctcct cctcctcctc ctctcctttt agtgatggtg 180
 42 agaaaaagat tagcttccga gatgtcttct aacctgactt acaacaactc ctctcgctcc 240
 44 cctcgccgtg tctctcacct tcttgactcc aactacaata ctgtcacacc acaacaacca 300
 46 ccgtctctta cggcgggcggc tactgtatct tctcaaccaa acccaccact ctctgtttgt 360
 48 ggcttctctg gtcttcccggt ttttccttca gaccgtggtg gtcggaatgt tatgatgtcc 420
 50 gtacaaccaa tggatcaaga ctcttcatct tcttctgctt cacctactgt atgggttgac 480
 52 gccattatca gagaccttat ccattcctca acttcagtct ctattcctca acttatccaa 540
 54 aacgttagag acattatctt cccttgtaac ccaaactctg gtgctcttct tgaatacagg 600
 56 ctccgatctc tcatgctctc tgatccttcc tcttctctg acccttctcc tcaaactttc 660
 58 gaacctctct atcagatctc caacaatcct tctcctccac aacagcaaca gcagcaccaa 720
 60 caacaacaac aacagcataa gcctcctcct cctccgattc agcagcaaga aagagaaaat 780
 62 tcttctaccg atgcaccacc gcaaccagag acagtgaagg ccactgttcc cgcggtccaa 840
 64 acaaatacgg cggagggttt aagagagagg aaggaagaga ttaagaggca gaagcaagac 900
 66 gaagaaggat tacaccttct cacattgctg ctacagtgtg ctgaagctgt ctctgctgat 960
 68 aatctcgaag aagcaaaca gcttcttctt gagatctctc agttatcaac tccttacggg 1020
 70 acctcagcgc agagagtagc tgcttacttc tcggaagcta tgtcagcgag attactcaac 1080
 72 tcgtgtctcg gaatttacgc ggctttgcct tcacggtgga tgcctcaaac gcatagcttg 1140
 74 aaaatggtct ctgcgtttca ggtctttaat gggataagcc ctttagtgaa attctcacac 1200
 76 tttaacagcga atcaggcgat tcaagaagca tttgagaaag aagacagtgt acacatcatt 1260
 78 gacttgagca tcatgcaggg acttcaatgg cctggtttat tccacattct tgcttctaga 1320
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 82 gctacaggga aacgtctttc ggatttcaca gataagcttg gcctgccttt tgagttctgc 1440

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86 gctgtggctg ttcactggct tcaacattct ctttatgatg tcaactggctc tgatgcacac 1560
88 actctctggt tactccaaag gtaaaataaa cattaccttt taatcactct ttatctataa 1620
90 attattttta gattatatag gaaagatatg ttctaaaaag ctggcttttt tggttaatga 1680
92 ttggggaatg aacagattag ctccctaaagt tgtgacagta gtggagcaag atttgagcca 1740
94 cgctggttct ttcttaggaa gatttgtaga ggcaatacat tactactctg cactctttga 1800
96 ctcaactggg gcaagctacg gcgaagagag tgaagagaga catgtcgtgg aacagcagct 1860
98 attatcgaaa gagatacgga atgtattagc ggttggagga ccacgcagaa gcggtgaagt 1920
100 gaagtttgag agctggaggg agaaaatgca acaatgtggg tttaaaggta tatcttttagc 1980
102 tggaaatgca gctacacaag cgactctact gttgggaatg tttccttcgg atggttacac 2040
104 tttggttgat gataatggtg cacttaagct tggatggaaa gatctttcgt tactcactgc 2100
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113 <211> LENGTH: 653
114 <212> TYPE: PRT
115 <213> ORGANISM: Arabidopsis thaliana
117 <400> SEQUENCE: 2
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120 1 5 10 15
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123 20 25 30
125 Pro Pro Pro Pro Pro Pro Pro Pro Leu Val Met Val Arg Lys Arg Leu
126 35 40 45
128 Ala Ser Glu Met Ser Ser Asn Pro Asp Tyr Asn Asn Ser Ser Arg Pro
129 50 55 60
131 Pro Arg Arg Val Ser His Leu Leu Asp Ser Asn Tyr Asn Thr Val Thr
132 65 70 75 80
134 Pro Gln Gln Pro Pro Ser Leu Thr Ala Ala Thr Val Ser Ser Gln
135 85 90 95
137 Pro Asn Pro Pro Leu Ser Val Cys Gly Phe Ser Gly Leu Pro Val Phe
138 100 105 110
140 Pro Ser Asp Arg Gly Gly Arg Asn Val Met Met Ser Val Gln Pro Met
141 115 120 125
143 Asp Gln Asp Ser Ser Ser Ser Ser Ala Ser Pro Thr Val Trp Val Asp
144 130 135 140
146 Ala Ile Ile Arg Asp Leu Ile His Ser Ser Thr Ser Val Ser Ile Pro
147 145 150 155 160
149 Gln Leu Ile Gln Asn Val Arg Asp Ile Ile Phe Pro Cys Asn Pro Asn
150 165 170 175
152 Leu Gly Ala Leu Leu Glu Tyr Arg Leu Arg Ser Leu Met Leu Leu Asp
153 180 185 190
155 Pro Ser Ser Ser Ser Asp Pro Ser Pro Gln Thr Phe Glu Pro Leu Tyr
156 195 200 205
158 Gln Ile Ser Asn Asn Pro Ser Pro Pro Gln Gln Gln Gln His Gln
159 210 215 220
161 Gln Gln Gln Gln Gln His Lys Pro Pro Pro Pro Pro Ile Gln Gln Gln
162 225 230 235 240
164 Glu Arg Glu Asn Ser Ser Thr Asp Ala Pro Pro Gln Pro Glu Thr Val

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167 Thr Ala Thr Val Pro Ala Val Gln Thr Asn Thr Ala Glu Ala Leu Arg
168          260          265          270
170 Glu Arg Lys Glu Glu Ile Lys Arg Gln Lys Gln Asp Glu Glu Gly Leu
171          275          280          285
173 His Leu Leu Thr Leu Leu Leu Gln Cys Ala Glu Ala Val Ser Ala Asp
174          290          295          300
176 Asn Leu Glu Glu Ala Asn Lys Leu Leu Leu Glu Ile Ser Gln Leu Ser
177 305          310          315          320
179 Thr Pro Tyr Gly Thr Ser Ala Gln Arg Val Ala Ala Tyr Phe Ser Glu
180          325          330          335
182 Ala Met Ser Ala Arg Leu Leu Asn Ser Cys Leu Gly Ile Tyr Ala Ala
183          340          345          350
185 Leu Pro Ser Arg Trp Met Pro Gln Thr His Ser Leu Lys Met Val Ser
186          355          360          365
188 Ala Phe Gln Val Phe Asn Gly Ile Ser Pro Leu Val Lys Phe Ser His
189          370          375          380
191 Phe Thr Ala Asn Gln Ala Ile Gln Glu Ala Phe Glu Lys Glu Asp Ser
192 385          390          395          400
194 Val His Ile Ile Asp Leu Asp Ile Met Gln Gly Leu Gln Trp Pro Gly
195          405          410          415
197 Leu Phe His Ile Leu Ala Ser Arg Pro Gly Gly Pro Pro His Val Arg
198          420          425          430
200 Leu Thr Gly Leu Gly Thr Ser Met Glu Ala Leu Gln Ala Thr Gly Lys
201          435          440          445
203 Arg Leu Ser Asp Phe Thr Asp Lys Leu Gly Leu Pro Phe Glu Phe Cys
204          450          455          460
206 Pro Leu Ala Glu Lys Val Gly Asn Leu Asp Thr Glu Arg Leu Asn Val
207 465          470          475          480
209 Arg Lys Arg Glu Ala Val Ala Val His Trp Leu Gln His Ser Leu Tyr
210          485          490          495
212 Asp Val Thr Gly Ser Asp Ala His Thr Leu Trp Leu Leu Gln Arg Leu
213          500          505          510
215 Ala Pro Lys Val Val Thr Val Val Glu Gln Asp Leu Ser His Ala Gly
216          515          520          525
218 Ser Phe Leu Gly Arg Phe Val Glu Ala Ile His Tyr Tyr Ser Ala Leu
219          530          535          540
221 Phe Asp Ser Leu Gly Ala Ser Tyr Gly Glu Glu Ser Glu Glu Arg His
222 545          550          555          560
224 Val Val Glu Gln Gln Leu Leu Ser Lys Glu Ile Arg Asn Val Leu Ala
225          565          570          575
227 Val Gly Gly Pro Ser Arg Ser Gly Glu Val Lys Phe Glu Ser Trp Arg
228          580          585          590
230 Glu Lys Met Gln Gln Cys Gly Phe Lys Gly Ile Ser Leu Ala Gly Asn
231          595          600          605
234 Ala Ala Thr Gln Ala Thr Leu Leu Gly Met Phe Pro Ser Asp Gly
235          610          615          620
237 Tyr Thr Leu Val Asp Asp Asn Gly Thr Leu Lys Leu Gly Trp Lys Asp
238 625          630          635          640

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247 <213> ORGANISM: Arabidopsis thaliana
249 <400> SEQUENCE: 3
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255                               20
258 <210> SEQ ID NO: 4
259 <211> LENGTH: 23
260 <212> TYPE: PRT
261 <213> ORGANISM: Saccharomyces cerevisiae
263 <400> SEQUENCE: 4
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268 Lys Leu Gln Arg Met Lys Gln
269                               20
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273 <211> LENGTH: 23
274 <212> TYPE: PRT
275 <213> ORGANISM: Arabidopsis thaliana
277 <400> SEQUENCE: 5
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280   1                5                10                15
282 Lys Lys Ala Tyr Val Gln Gln
283                               20
286 <210> SEQ ID NO: 6
287 <211> LENGTH: 23
288 <212> TYPE: PRT
289 <213> ORGANISM: Mus musculus
291 <400> SEQUENCE: 6
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294   1                5                10                15
296 Arg Arg Glu Leu Thr Asp Thr
297                               20
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301 <211> LENGTH: 23
302 <212> TYPE: PRT
303 <213> ORGANISM: Homo sapiens
305 <400> SEQUENCE: 7
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308   1                5                10                15
311 Lys Leu Glu Arg Ile Ala Arg
312                               20
314 <210> SEQ ID NO: 8
315 <211> LENGTH: 23

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316 <212> TYPE: PRT
317 <213> ORGANISM: Homo sapiens
319 <400> SEQUENCE: 8
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324 Lys Lys Glu Tyr Val Lys Cys
325           20
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329 <211> LENGTH: 23
330 <212> TYPE: PRT
331 <213> ORGANISM: Zea mays
333 <400> SEQUENCE: 9
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336   1           5           10           15
338 Lys Ala Ala His Leu Lys Glu
339           20
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343 <211> LENGTH: 23
344 <212> TYPE: PRT
345 <213> ORGANISM: Zea mays
347 <400> SEQUENCE: 10
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350   1           5           10           15
352 Lys Lys Ser Tyr Ile Lys Asp
353           20
356 <210> SEQ ID NO: 11
357 <211> LENGTH: 23
358 <212> TYPE: PRT
359 <213> ORGANISM: Oryza sativa
361 <400> SEQUENCE: 11
363 Arg Arg Met Val Ser Asn Arg Glu Ser Ala Arg Arg Ser Arg Lys Lys
364   1           5           10           15
366 Lys Gln Ala His Leu Ala Asp
367           20
370 <210> SEQ ID NO: 12
371 <211> LENGTH: 43
372 <212> TYPE: PRT
373 <213> ORGANISM: Arabidopsis thaliana
375 <400> SEQUENCE: 12
377 Ala Phe Glu Lys Glu Asp Ser Val His Ile Ile Asp Leu Asp Ile Met
378   1           5           10           15
380 Gln Gly Leu Gln Trp Pro Gly Leu Phe His Ile Leu Ala Ser Arg Pro
381           20           25           30
383 Gly Gly Pro Pro His Val Arg Leu Thr Gly Leu
384           35           40
387 <210> SEQ ID NO: 13
388 <211> LENGTH: 43
389 <212> TYPE: PRT
390 <213> ORGANISM: Arabidopsis thaliana

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Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

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Input Set : A:\5914066999.txt

Output Set: N:\CRF3\12132001\I265585C.raw

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L:729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
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L:1014 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
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L:1586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
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L:1673 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39
L:1698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40
L:1701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40
L:1738 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:1741 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:1744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
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L:1797 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
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L:2807 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60
L:2809 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60
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